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(54) Title: **DSRA PROTEIN AND POLYNUCLEOTIDES ENCODING THE SAME**

(57) Abstract: DsrA is an outer membrane protein of *H. ducreyi* that confers serum resistance to the bacteria. Isolated polynucleotides encoding the protein, end expression vectors and host cells encoding the same, are described. Also described is a mutant *H. ducreyi* strain that does not express DsrA. Vaccines against *H. ducreyi* and methods of using the same are also described.